

CIVIL ENGINEERING DIVISION
UNITED STATES COAST GUARD
WASHINGTON, D.C.

JUNE 1989

SPECIFICATION FOR CAST IRON BUOY SINKERS
SPECIFICATION NO. 429A

1. SCOPE

1.1 Purpose. This specification describes the requirements for hemispherical, cast iron sinkers used for mooring aids to navigation buoys in coastal and inland waters.

2. APPLICABLE DOCUMENTS

2.1 Applicability. The following documents form a part of this specification to the extent referenced herein. The suffixes denoting the specific editions of the documents will be omitted from all future references to the documents in this specification.

AMERICAN SOCIETY FOR TESTING AND MATERIALS STANDARDS:

ASTM A36-87	Standard Specification for Structural Steel
ASTM A48-83	Standard Specification for Gray Iron Castings

2.2 Drawing. U.S. Coast Guard Civil Engineering Drawing No. 121136, "Cast Iron Buoy Sinkers", forms a part of this specification and is hereafter referred to as the drawing.

3. REQUIREMENTS

3.1 General. The sinkers shall be fabricated from cast iron using the sand molding process. The sinkers bails shall be steel.

3.1.1 Pattern. The Contractor shall design and construct wooden patterns for use in fabricating the sinkers. The patterns shall result in sinkers conforming to the dimensions and tolerances shown on the drawing. At the completion of the contract, the patterns shall be furnished to the Coast Guard in a condition suitable for future use. The Contracting Officer reserves the right to waive all or part of the pattern requirements described in this specification.

3.2 Material.

3.2.1 Sinker body. The sinker body shall be gray cast iron of uniform quality conforming to any class listed in ASTM A48.

3.2.2 Sinker bail. The sinker bail shall be hot rolled carbon steel bar conforming to ASTM A36.

3.2.3 Certificates of conformance. The Contractor shall furnish certificates of conformance, either from the material manufacturers or reputable independent testing laboratories, to the effect that the materials used in the sinkers have been tested and found to meet the requirements of this specification.

3.3 Design.

3.3.1 Sinker body. The sinker body shall be hemispherical with a concave base, in accordance with the dimensions and tolerances shown on the drawing.

3.3.2 Sinker bail. The sinker bail shall conform to the dimensions and tolerances shown on the drawing. The sinker bail shall be cast into the sinker body so that the sinker body and sinker bail form a single unit.

3.4 Weight. Each sinker shall conform to the weights and tolerances shown on the drawing.

3.5 Surfaces. Sinkers shall be free from adhering sand, scale and other foreign material. Surfaces shall be smooth and free from defects which might adversely affect serviceability and handling of the sinkers. Surfaces may be repaired by plugging and welding. No preservative coating is required.

3.6 Marking. The nominal weights, as shown on the drawing, and the actual weights, as determined by the weight test (see paragraph 4.2.3), shall be legibly and permanently marked on the convex surface of each sinker. The marking shall be by casting, welding, inscribing, or other suitable method resulting in a permanent marking. Painting or stencilling shall not be used. The marking shall be in block characters of the size shown on the drawing.

4. INSPECTION AND ACCEPTANCE

4.1 General. The following clause from the Federal Acquisition Regulation (48 CFR Chapter 1) is included by reference, with the same force and effect as if it were given in full text.

52.246-2 Inspection of Supplies - Fixed Price (APR 1984)

4.2 Inspections and tests. The Contractor shall perform all inspections and tests necessary to ensure that the sinkers submitted to the Coast Guard conform to the requirements of this specification. The Contractor shall correct all defects found during these inspections and tests, and shall eliminate the cause of the defects from the sinker production process.

4.2.1 Material inspection. The Contractor shall ensure that all materials used in the sinkers conform to the requirements of this specification. At the time of final inspection, the Contracting Officer's Technical Representative, hereafter referred to as the COTR, will verify conformance. Sinkers built with incorrect materials will be rejected.

4.2.2 Visual inspection. The Contractor shall perform all visual inspections necessary to ensure that each sinker offered conforms to the requirements of paragraphs 3.3, 3.5 and 3.6. At the time of final inspection, the COTR will verify conformance. Sinkers failing to meet the requirements of these paragraphs will be rejected.

4.2.3 Weight test. The Contractor shall ensure that each sinker offered conforms to the requirements of paragraph 3.4. At the time of final inspection, the Contractor shall weigh each sinker in the presence of the COTR. Each sinker failing to meet the requirements of paragraph 3.4 will be rejected.

4.2.4 Impact test. The Contractor shall perform the following test, in the presence of the COTR, on each sinker offered. The Contractor shall raise the sinker to a height of at least 5 feet. While it is thus suspended, the Contractor shall strike the sinker at various points on its surface with a ten-pound or heavier sledge hammer. The Contractor shall then allow the sinker to fall freely from that height onto concrete, compacted earth, or other surface of similar hardness. Each sinker which exhibits fracturing, cracks, flaws or deformation of the body or bail during this test will be rejected.

5. PACKAGING AND MARKING

5.1 General. The following clauses from the Federal Acquisition Regulation (48 CFR Chapter 1) are included by reference, with the same force and effect as if they were given in full text.

52.246-16 Responsibility for Supplies (APR 1984)
52.247-34 F.O.B. Destination (APR 1984)

5.2 Packaging. Packaging of the sinkers is not required. Packaging of the patterns shall be in accordance with good commercial practice. The Contractor shall ensure that the sinkers and patterns arrive at the destination undamaged.

5.3 Marking. Each sinker shall be tagged with a metal shipping tag indicating the complete name and address of consignee, contract number, actual weight, and name of manufacturer. The packaged patterns shall be legibly marked with the same information.

5.4 Material Inspection and Receiving Report (DD-250 Form). A form DD-250 shall be used as a packing list and as a certification of acceptance. The Contractor shall prepare a separate DD-250 for each shipment to each destination, and the DD-250 shall accompany the shipment. The Coast Guard receiving personnel will sign the DD-250 after ensuring that the shipment of sinkers is acceptable. One copy of the signed DD-250 shall be given to the Coast Guard receiving personnel, one copy shall be forwarded to the COTR, and the Contractor shall retain one copy. The disposition of the remaining copies will be determined by the Contracting Officer after contract award.

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SHIPPING DESTINATIONS

Cast Iron Sinkers:

Commander
U.S. Coast Guard Group
Woods Hole, MA 02543
Attn: USCGC BITTERSWEET (WLB389)

Wooden Pattern:

Commanding Officer
Supply Center Curtis Bay
Receiving Room
Curtis Bay, MD 21226
M/F SICP Inventory

SUGGESTED SOURCES OF SUPPLY

1. Baldt, Inc.
P.O. Box 350
Chester, PA 19016
ATTN: Rocco Albertini
(215) 447-5232
2. Lacy Foundry
1401 Block Street
Baltimore, MD 21231
ATTN: Bill Sauerwein
(301) 342-1148
3. Knapp Foundry Co, Inc.
1201 Sweitzer Avenue
Akron, OH 44301
ATTN: Charles Knapp
(216) 434-0916
4. Clearfield Machine Co.
Everett & 3rd Streets
Clearfield, PA 16830
ATTN: Charles Taccone
(814) 765-6544
5. Washington Mould
Crile Street
Washington, PA 15301
ATTN: Kevin Seibel
(412) 225-7700
6. Elyria Foundry Division
1201-T Filbert Street
Elyria, OH 44035
ATTN: Al Weigl
(216) 322-4657
7. Somerset Foundry and Machine Co.
P.O. Box 352
Somerset, PA 15501
ATTN: Mr. Pallan
(814) 445-7927
8. Hodge Foundry
Box 550
Greenville, PA 16125
ATTN: Jay Hodge
412-588-4100